DRIPPING EVAPORATION TYPE OF INSECT LURING DEVICE

BACKGROUND OF THE INVENTION

The commonly used insect luring device is a cotton pad patch soaked with insecticide which has a strong smell that is able to attract and kill moths and insects. After soaking, the patches are hung around the field. Being attracted by the smell evaporating from the cotton pad which was soaked with insecticide, fruit flies, melon flies, and other insects will come near and perch on the patch, whereupon the insecticide will kill these insects.

The defects of this traditional type of insect luring device are: (1) Handling this cotton pad soaked with insecticide will contaminate bare hands, which is hazardous and can cause serious health problems. (2) The cotton pad soaked with insecticide is inconvenient to handle and, of course, it has an unattractive appearance. (3) On sunny days, the patch will quickly dry out and, on rainy days, the insecticide will be quickly washed out of the patch by the rain. (4) The longest effective period of this known insecticide device is around two weeks.

A dripping evaporation type of insect luring device constructed in accordance with the present invention does not have these defects.

SUMMARY OF THE INVENTION

This invention is a dripping evaporation type of insect luring device. Its insecticide container is installed on a strut in the base assembly. The strut holds the insecticide container which releases insecticide onto the base plate. As the released insecticide sends a smell into the area nearby the lure, fruit flies, melon flies and other insects in the surrounding area come into this luring and the insecticide in the device kills the incoming insects on the spot. The base plate is protected by an enclosure that prevents it from being exposed to the sunlight and rain, thus extending the service life of the insecticide, and the device prevents hand contamination, thus protecting the end-users. Its attractive appearance, safety and extended service life are advantageous features of this invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective drawing of apparatus in accordance with this invention.

FIG. **2** is a partial illustration of a first embodiment of this invention.

FIG. **3** is a partial illustration of a second embodiment of this invention.

DETAILED DESCRIPTION

This invention is a dripping evaporation-type insect luring device which comprise an enclosure assembly and a base assembly that provide protection from sunlight and rain. It also has a wooden base plate that increases the surface area over which the insecticide spreads, thus extending the service life of this device to a period of two months.

With reference first to FIG. **1**, the device shown comprises an enclosure **1** and a base assembly **2**. In an upper extension of the enclosure assembly **1**, there is a hole **11** used for fixing the entire device in a convenient location using a rope. At the middle part of the enclosure assembly **1**, there is a big ventilation opening **12** used for spreading the smell of the insecticide into the nearby atmosphere as the insecticide evaporates and thus luring the fruit flies, melon flies and other insects into the device, killing these insects. As the fruit flies, melon flies and other insects enter and get killed inside this device, the ventilation opening **12** will become blocked by these dead insects if they are allowed to collect in the opening. Therefore, the bottom edge of this opening is so designed as to have a slightly inclined slope which causes these dead insects to drop to the ground by themselves as the pile of insects reaches a specific height.

FIG. **2** shows a first embodiment of this invention. The enclosure **1** in this drawing has a ventilation opening **12** and a socket base **13** at its lower end. This socket base **13** has screw thread **14**.

The inner side of the base assembly **2** in this embodiment also has screw thread which can not be seen in this drawing. The base assembly **2** can be fixed to the enclosure **1** by matching this screw thread with the screw thread **14** the on enclosure **1**. At the center of the base cap **2**, there is a support bar **21**. Immediately above the center of this support bar **21**, there is a strut **22** and at the joint between the strut **22** and support bar **21**, there is a wooden base plate **23**. There are several grooves **231** cut around this wooden base plate **23**. Through these grooves **231**, insecticide will move to the lower side of the wooden base plate **23** from its upper surface and hence spread the insecticide over the entire surface of the wooden base plate **23**.

Furthermore, in accordance with a second embodiment of this invention, a cotton pad **24** can be placed around the strut **22** on the base plate **23** as shown in FIG. **3**. An inverted insecticide container **3** is mounted on the strut **22** in the enclosure **1** and the enclosure **1** presses the container **3** onto the cotton pad **24**. After the cotton pad **24** is soaked with insecticide, the insecticide will move toward the base plate **23** from cotton pad **24** gradually. Hence, the cotton pad on the base plate will spread insecticide uniformly over the base plate, which extends the device's service life. The effective service life of the device in this way can be extended from 2–3 months to 4–5 months, both of which are much longer than the useful life of commonly used cotton pad patch, which is about 7 days.

In this embodiment, is base plate is made of cork. It also can be made of fiberous material, such as sponge, polyester, sugar cane, cotton, wood, . . . etc. These materials will spread the insecticide over the base uniformly and extend its service life substantially.

OPERATION OF THE DEVICE

First, a filled insecticide container **3** is opened in the up-side-down position and the strut **22** of the base assembly **2** is inserted into the opening **31** of the insecticide container **3**. This insecticide, as is true of well-known insecticides that are used for evaporation lures, possesses some tackiness and the size of the opening **31** in the container **3** is rather small; therefore the insecticide does not flow out freely. When strut **22** is inserted into the opening **31**, it is not only able to support the weight of the whole insecticide container **3**, hence to stop it from falling over when the device is shaken, but it also makes the insecticide move from the strut **22** onto wooden base **23** gradually. Furthermore, there are several grooves **231** cut around the wooden base **23** to assure that the whole wooden base **23** is permeated by